

REMARKS

Claims 1-37 are pending in the application.

Claims 1-11, 13-22 and 24-37 have been rejected.

Claims 1, 13, 24 and 30 have been amended.

Unless otherwise specified in the below discussion, Applicants have amended the above-referenced claims in order to provide clarity or to correct informalities in the claims. Applicants further submit that, unless discussed below, these amendments are not intended to narrow the scope of the claims. By these amendments, Applicants do not concede that the cited art is prior to any invention now or previously claimed. Applicants further reserve the right to pursue the original versions of the claims in the future, for example, in a continuing application.

Rejection of Claims Under 35 U.S.C. §112

Claims 1, 24 and 30 stand rejected under 35 U.S.C. §112, second paragraph, as purportedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse this rejection.

The Office Action objects to the use of the term “source identifiers” in Claims 1, 24 and 30 as not agreeing in plurality with earlier use of associating a source identifier with each PDU. Applicants have amended the objected to phrase to reflect “source identifier,” in accord with the suggestion of the Office Action. Applicants respectfully

submit that this amendment addresses the rejection raised under 35 U.S.C. § 112, and that Claims 1, 24 and 30 are now in condition for allowance.

Rejection of Claims Under 35 U.S.C. §103

Claims 1-11, 13-22 and 24-37 stand rejected under 35 U.S.C. §103(a) as purportedly being unpatentable over U.S. Patent No. 5,680,400 issued to York (“York”) in view of U.S. Patent No. 7,149,432 issued to Smith et al. (“Smith”). Applicants respectfully traverse this rejection.

In order for a claim to be rendered invalid under 35 U.S.C. §103, the subject matter of the claim as a whole would have to be obvious to a person of ordinary skill in the art at the time the invention was made. *See* 35 U.S.C. §103(a). This requires: (1) the reference(s) must teach or suggest all of the claim limitations; (2) there must be some teaching, suggestion or motivation to combine references either in the references themselves or in the knowledge of the art; and (3) there must be a reasonable expectation of success. *See* MPEP 2143; MPEP 2143.03; *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998).

Independent Claims 1, 13, 24 and 30, as amended, each contain limitations of substantially the following form:

decomposing an input datastream of a plurality of input datastreams into a plurality of sub-streams, wherein ...

appending to each PDU a source identifier identifying the source of the input datastream.

See, e.g., Claim 1 (amended). Support for these amendments can be found at least in the provisional patent application entitled “Method and Apparatus for Wavelength

Concatenated Channel Framing” (60/270,444) which was incorporated by reference by the original Application on pages 14 and 17. *See also* Resp. to Non-Final Office Action, p.11 (“Formal Remarks”)(January 15, 2007). The Appendix accompanying that provisional patent application describes the use and formation of PDUs, source identifiers for PDUs (e.g., Q_IDs) and data frames comprising PDUs. *See, e.g.*, Provisional Patent App. No. 60/270,444, Appendix pp.16-19. Applicants respectfully submit that neither York nor Smith, alone or in combination provide disclosure of all of these limitations.

The Office Action admits that York fails to provide disclosure of “decomposing an input datastream of a plurality of input datastreams, associating with each PDU a source identifier identifying the source of the input datastream.” *See* Office Action, p.6. In order to remedy this deficiency in the disclosure of York, the Office Action relies upon Smith. *See* Office Action, p.7. Applicants submit that Smith fails to provide disclosure of the amended limitation.

Smith purports to disclose “a method and apparatus for optical equalization to improve signal reach by distributing two or more data signals across two or more channels of an optical link.” Smith 4:49-52. Smith purports to accomplish this goal by distributing each of M data signals among N transport channels by dividing each of the M data signals into N sub-streams. *See* Smith 5:33-47. For each transport channel, the sub-streams from each of the originating data signals are purportedly interleaved into serial-composite datastream that is transmitted on the transport channel. *See* Smith 5:48-50; Smith 6:15-33.

In order to identify the originating datastream for each of the sub-streams that are interleaved, Smith purportedly utilizes a sub-stream processor that “operates to insert a unique sub-stream identifier into each of the sub-streams 22 received by the interleaver

20, prior to their being interleaved into a respective channel 16.” Smith 5:50-54. Smith states that “the sub-stream identifier preferably comprises a unique, n-bit word, which is inserted into a respective sub-stream 22 at a predetermined frequency.” Smith 5:56-59; *see also* Smith 6:4-6 (“In general, an insertion frequency of about 8 kHz should yield satisfactory results in most cases.”). Thus, Smith discloses inserting the disclosed sub-stream identifier into the sub-stream. Smith does not disclose appending a sub-stream identifier to a PDU, as claimed.

The Office Action appears to relate Smith’s disclosure of “divid[ing] each data signal 14 into a sequential series of data units 24 of a predetermined length” (Smith 5:36-38) with the claimed payload data units. *See* Office Action, p.7. But Smith is clear that the Smith’s sub-stream identifier is inserted into the sub-stream created by these sequential series of data units and is not appended to each of Smith’s data units. *See* Smith 5:50-6:6.

For at least these reasons, Applicants submit that neither York nor Smith, alone or in combination, provide disclosure of the amended claim limitations of independent Claims 1, 13, 24 and 30, and all claims depending therefrom. Applicants respectfully submit that it is the burden of the Examiner to establish the disclosure of all the limitations of the claims in the asserted references.

In addition, Applicants submit that a person of ordinary skill in the art would not be motivated to combine York with Smith because such a combination would not be successful. York is designed to purportedly transport one input datastream over a plurality of transmission links. In order to do so, York relies upon a preset ordering of transmitter queues that is transmitted to the receiver in order to facilitate reassembling the datastream. No identification of the transmitted packets is made or necessary. Instead,

the reassembly is performed on a queue by queue basis (or transmit line by transmit line basis). *See* York 4:6-17, 4:35-41, 6:19-24. York does not contemplate multiple input datastreams, nor can York handle multiple input datastreams. In fact, were one to put multiple input datastreams into the York device, the output at the receiving end would be a meaningless jumble because York provides no mechanism for identifying input datastreams.

Further, one would not be motivated to combine Smith with York because York does not provide disclosure that would enhance the performance of Smith. Smith provides a mechanism for purportedly dealing with multiple input datastreams, splitting the datastreams, transmitting a number of transmission datastreams, and then reassembling the original datastreams from the transmission datastreams. Thus, combining the teachings of York with Smith would be at best redundant. In addition, Smith provides transmission of the transmission datastreams using a serial-composite datastream. The Office Action has failed to provide a basis for any benefit that one would derive from coupling the packetized system of York to Smith.

For at least these reasons, Applicants submit that independent Claims 1, 13, 24 and 30, as amended, and all claims depending therefrom are allowable over the combination of York with Smith. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

Rejection of Claims Under 35 U.S.C. §102

Claims 1, 13, 24 and 30 stand rejected under 35 U.S.C. §102(e) as purportedly being anticipated by Smith. Applicants respectfully traverse this rejection.

As an initial matter, Applicants respectfully submit that the particular parts of the Smith that are relied upon in the Office Action have not been designated as nearly as practicable, and the pertinence of each reference has not been clearly explained, both as required by 37 C.F.R. §1.104(c)(2). *See also* MPEP §706.02(j). As purported disclosure within Smith of the limitations of Claims 1, 13, 24 and 30, the Office Action cites to a broad swath of text from Col. 5, line 5 to Col. 7, line 55, without providing any specificity as to what portions of that text correspond to the claim limitations. *See* Office Action, pp.33-37. In addition, the Office Action provides a copy of Smith Figure 2, without any reference to what portions of the figure correspond to limitations of the claims. Nevertheless, the applicants have made every effort to respond to the rejections outlined in the Office Action.

Independent Claims 1, 13, 24 and 30, as amended, each contain limitations of substantially the following form:

decomposing an input datastream of a plurality of input datastreams into a plurality of sub-streams, wherein ...

 appending to each PDU a source identifier identifying the source of the input datastream.

See, e.g., Claim 1 (amended). Applicants respectfully submit that Smith fails to provide disclosure of all of these limitations.

Smith purports to disclose “a method and apparatus for optical equalization to improve signal reach by distributing two or more data signals across two or more channels of an optical link.” Smith 4:49-52. Smith purports to accomplish this goal by

distributing each of M data signals among N transport channels by dividing each of the M data signals into N sub-streams. *See* Smith 5:33-47. For each transport channel, the sub-streams from each of the originating data signals are interleaved into serial-composite datastream that is transmitted on the transport channel. *See* Smith 5:48-50; Smith 6:15-33.

In order to identify the originating datastream for each of the sub-streams that are interleaved, Smith purportedly utilizes a sub-stream processor that “operates to insert a unique sub-stream identifier into each of the sub-streams 22 received by the interleaver 20, prior to their being interleaved into a respective channel 16.” Smith 5:50-54. Smith states that “the sub-stream identifier preferably comprises a unique, n-bit word, which is inserted into a respective sub-stream 22 at a predetermined frequency.” Smith 5:56-59; *see also* Smith 6:4-6 (“In general, an insertion frequency of about 8 kHz should yield satisfactory results in most cases.”). Thus, Smith discloses inserting the disclosed sub-stream identifier into the sub-stream. Smith does not disclose appending a sub-stream identifier to a PDU, as claimed.

The Office Action appears to relate Smith’s disclosure of “divid[ing] each data signal 14 into a sequential series of data units 24 of a predetermined length” (Smith 5:36-38) with the claimed payload data units. *See* Office Action, p.7. But Smith is clear that the Smith’s sub-stream identifier is inserted into the sub-stream created by these sequential series of data units and is not appended to each of Smith’s data units. *See* Smith 5:50-6:6. In addition, Smith fails to provide any disclosure of forming a “data frame comprising one or more PDUs and the appended source identifier for each PDU and transmitting the data frame over the corresponding channel,” as claimed. Without such disclosure, Smith cannot be said to anticipate the claims.

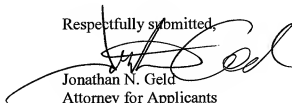
For at least these reasons, Applicants submit that Smith fails to provide disclosure of all the limitations of independent Claims 1, 13, 24 and 30, as amended, and all claims depending therefrom and that these claims are in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5090.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,



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